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Study of the Charged Pion Form Factor DAVID MACK, TJNAF — The charged pion form factor, $F_\pi(Q^2)$, is an important testing ground for QCD-inspired models and an important phenomenological input to nuclear and particle physics calculations. Due to the pion's two valence quark structure, PQCD may be applicable at much lower Q^2 than in the case of the nucleon. However, at Q^2 accessible at Jefferson Lab in the forseeable future, F_π is expected to be predominantly non-perturbative. In Hall C at TJNAF we have recently completed measurements of separated cross sections for forward pion electroproduction on the proton in the Q^2 range 0.6-1.6 $(GeV/c)^2$. The forward longitudinal response is dominated by pion exchange and thus is sensitive to $F_\pi(Q^2)$. Data were also taken on Deuterium to better understand physics backgrounds. The status of the effort will be summarized.

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